

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : BAXTER, R.
Appl. No. : 10/765,959
Filed : January 29, 2004
Title : HYDRAULIC CLUTCH ACTUATOR FOR LIMITED
SLIP DIFFERENTIAL ASSEMBLY
Group Art Unit : 3681
Examiner : RODRIGUEZ, S.
Docket No. : 08200.709

January 10, 2008

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST FOR REHEARING

Applicant respectfully requests the proceeding be reheard of the decision dated November 14, 2007, under 37 CFR 41.50(b)(2) by the Board of Patent Appeals and Interferences upon the same record.

No fees are believed to be necessary for this filing. However, applicant hereby petitions for any necessary fees or other relief associated with this filing and authorizes the commissioner to charge applicant's representative's charge account 50-0548 for any deficiencies.

REMARKS/ARGUMENTS

In a decision dated November 14, 2007, the Board sustained the rejection of all of the claims on appeal, i.e. claims 1, 4-11, 13-20 and 23. Applicant believes that the Board made a factual error in its decision.

Porter discloses a hydraulic coupling (i.e. a hydraulically actuated friction clutch), having an input shaft and only one output shaft. The hydraulic coupling of Porter is provided for “on-demand” actuating of the auxiliary rear axle. Claim 1, on the other hand, recites a “differential”, which, we argued, by definition (applicant cited both the Dictionary of Automotive Engineering and the Dictionary of Mechanical Engineering) is a mechanism that divides the input torque of one input shaft between two output shafts where rotation at different speeds is likely to occur, as in cornering. By contrast, the friction clutch coupling 44 of Porter simply connects the input shaft 42 with the pinion shaft 54, and cannot be construed as a “differential”. In other words, the differential rotation allowed by the hydraulic coupling of Porter is between the input and output shafts, not between the two output shafts, as required by the definition of the term “differential”.

The Board stated in its Decision that “When construing claim terminology in the Patent and Trademark Office, this Board is required to give the claim language its broadest reasonable interpretation”. However, the Board omitted that the broadest reasonable interpretation of the claims must also be consistent with the interpretation that

those skilled in the art would reach. The Board stated that “We have found that the device disclosed in Porter is often referred in the art as a “center differential””, and cited the definitions of the “center differential” found in the following references (copies attached):

Keith Lane, *Automotive A-Z: Lane’s Complete Dictionary of Automotive Terms* (reference A); and

John Dinkle, *Road and Track Illustrated Automotive Dictionary* (reference B).

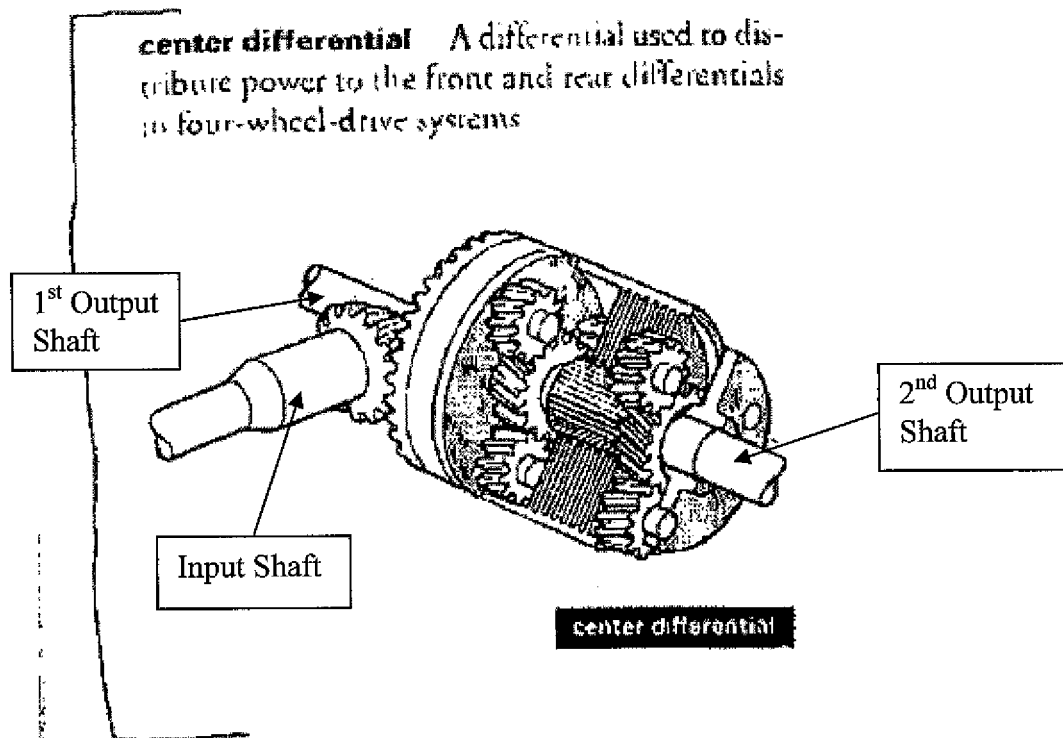
Based on these references, the Board concluded that a center differential may have a single input and a single output.

Applicant believes that the Board’s misapprehended the definitions of the term “center differential” as defined in either reference A or reference B, and the hydraulic coupling of Porter. Moreover, the above cited definitions clearly support applicant’s position and are in agreement with the definitions of both the Dictionary of Automotive Engineering and the Dictionary of Mechanical Engineering cited by us during the prosecution.

Specifically, the Lane’s Complete Dictionary of Automotive Terms defines the “centre differential” as “a differential in a 4wd transmission on the output from the gearbox where the drive is divided between front and rear axles, to allow each axle to turn at different speeds when steering a curved course.” This definition explicitly states one input (“the output from the gearbox”) and two outputs (“the drive is divided between front and rear axles”). In other words, the Lane’s definition of the “centre differential” allows

the differential rotation between axles, not between the input and output shafts, as alleged by the examiner

Similarly, the Road and Track Illustrated Automotive Dictionary defines the “center differential” as “a differential used to distribute power to the front and rear differentials in four-wheel-drive systems”. This definition also explicitly states one input (“to distribute power”) and two outputs (“to the front and rear differentials”). Moreover, this definition is accompanied with a drawing (shown below) clearly showing one input shaft and two output shafts: 1st output shaft driving a front differential (not shown) and a 2nd output shaft driving a rear differential (not shown).



Therefore, both the Lane's Complete Dictionary of Automotive Terms and the Road and Track Illustrated Automotive Dictionary define the term "center differential" as a mechanism that divides the input torque of one input shaft between two output shafts, that corresponds both with the above-mentioned the Dictionary of Automotive Engineering and the Dictionary of Mechanical Engineering relied upon by applicant to define the term "differential". Accordingly, we strongly believe that the Board misconstrued the term "center differential", and misapprehended the hydraulic coupling of Porter, which would not be interpreted by those skilled in the art as a "differential".

Respectfully submitted:
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